

# Marine Debris



NOAA Marine Debris Program | Office of Response and Restoration | NOAA National Ocean Service

## Japan Tsunami Marine Debris



*Debris from the tsunami in Japan lingered off the Sendai coast, two days after the disaster. These fields of debris quickly dispersed across the Pacific Ocean. Credit: U.S. Navy*

After the devastating tsunami of March 2011, the Japanese government estimated that approximately 5 million tons of debris washed out to sea, but that that 70 percent of it sank immediately. The rest dispersed across an area of the North Pacific Ocean roughly three times the size of the continental United States.

### Where Is It Now?

Some of the debris may have sunk by now, and some has already arrived on U.S. coasts. Items may continue to make landfall anywhere from Alaska down to California and Hawaii, or they could get pulled into existing “garbage patches” where ocean currents converge. A NOAA model shows that the bulk of the debris likely remains dispersed north of the Main Hawaiian Islands and east of Midway Atoll.

### What Does It Look Like?

Several items have confirmed connections to the Japan tsunami, including vessels, buoys, sports balls, floating piers, and a motorcycle in a container. Other types of debris that could wash up include buoyant items, such as fishing nets, lumber, or cultural items. However, it’s very difficult to tell where debris came from without unique identifying information. Marine debris is an everyday problem and comes from many sources around the Pacific.



*California recently received its first confirmed piece of tsunami debris. On April 7, 2013, a boat washed ashore on the beach just south of Crescent City, CA. Responders were able to trace characters written on the boat to a high school that was located in the tsunami impact zone in Japan.*

### What To Do If You See Debris

#### 1. Clean up small, harmless debris

If you see small debris, like bottles, aluminum, or Styrofoam, remove it from the beach and recycle as much as possible. You should report larger, hazardous, or unmanageable debris to local authorities without touching it (see reverse page).

#### 2. Report it

Marine debris items or significant accumulations potentially related to the tsunami can also be reported to [DisasterDebris@noaa.gov](mailto:DisasterDebris@noaa.gov).

Include as much information as possible: its location, the date and time you found it, photos, and other relevant descriptions. Not all debris found on U.S. shorelines is from Japan or the tsunami, so please use your discretion when reporting items.

For more information, find us at:

[www.marinedebris.noaa.gov/tsunamidebris](http://www.marinedebris.noaa.gov/tsunamidebris)



/NOAA Marine Debris



@NOAAdebris



## Is It Safe?

Radiation experts agree it is highly unlikely that any tsunami-generated marine debris holds harmful levels of radiation from the Fukushima nuclear emergency. Some marine debris collected along shorelines in Hawaii and on the West Coast, including debris known to be from the tsunami, has been tested, and all readings were normal.

It's possible that large or hazardous debris, such as vessels, shipping containers, or drums filled with chemicals or oil may wash ashore. Use common sense and follow general safety guidelines. If you don't know what an item is, don't touch it. If it appears hazardous, contact appropriate authorities.

### Potential hazardous materials (HAZMAT)

*Examples: Oil or chemical drums, gas cans, propane tanks.*

Contact your local authorities (a 911 call), a state emergency response or environmental health agency, and the National Response Center at 1-800-424-8802 to report the item with as much information as possible. Do not touch the item or attempt to move it. Do not contact DisasterDebris@noaa.gov for response assistance.

### Derelict vessel or other large debris item

*Examples: Adrift fishing boat, shipping containers*

Contact your local authorities (a 911 call) and a state emergency response or environmental health agency to report the item. If the debris item is a potential hazard to navigation, immediately radio your nearest US Coast Guard Sector Command Center via VHF-FM Ch. 16 or 2182 MHz or notify the US Coast Guard Pacific Area Command at 510-437-3701. Do not attempt to move or remove the item.

Some states have established toll-free phone lines for reporting all categories of marine debris, including potentially hazardous items:

- Oregon: Call 2-1-1
- Washington: Call 1-855-WACOAST (1-855-922-6278)
- Hawaii: Call (808) 587-0400

## NOAA's Role

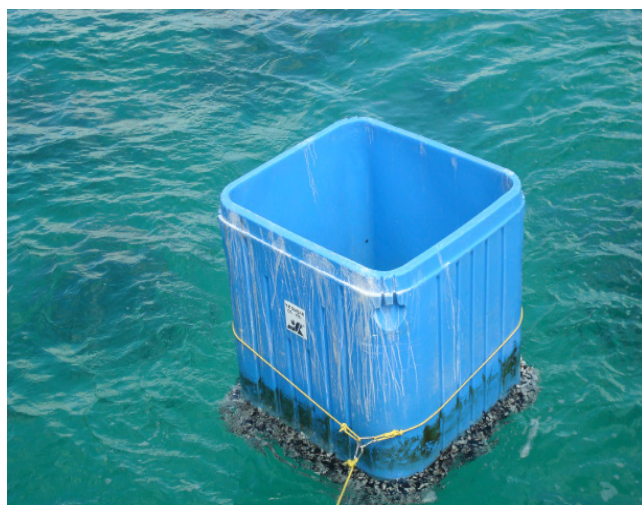
NOAA is gathering at-sea observations from aircraft, satellite, and vessels. We are also modeling the debris movement, conducting outreach, and monitoring baseline debris accumulations at shoreline sites. NOAA and other federal agencies are also working with states and local communities to develop response plans, which will include response protocols under various scenarios. These plans will include guidance for mitigating marine debris on and offshore, including large items, and items that may be pose health and safety risks.



*One of the first items to be linked to the tsunami, a soccer ball found in Alaska, was returned to its owner in Japan. Credit: David Baxter*



*In June 2012, a 70-foot dock washed ashore on Agate Beach, Oregon. The dock, which had invasive species attached to it, has since been dismantled and removed. Credit: Oregon Department of Parks and Recreation*



*A large blue plastic bin, used for transporting live and frozen seafood, was found floating in the ocean near Waimanalo, Oahu, in September 2012. Credit: Hawaii DLNR*